UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF OHIO

WESTERN DIVISION

ERIC L. JEFFRIES, :

Plaintiff, :

vs., : Case No. 1:02cv00351

CENTRE LIFE INSURANCE CO., :

Defendant. :

Deposition of **HAROLD T. PRETORIUS, MD, Ph.D**, a witness herein, taken as upon cross-examination by the Defendant, and pursuant to the Federal Rules of Civil Procedure, and agreement of counsel and stipulations hereinafter set forth, at the offices of Wood & Lamping, 600 Vine Street, Suite 2500, Cincinnati, Ohio, 45202, at 1:00 p.m., on the 21st day of November, 2003, before Kelly A. Graff, RPR, a Notary Public for the State of Ohio.

TRI-COUNTY COURT REPORTING AND VIDEOTAPE SERVICE

95 South Fourth Street
Batavia, Ohio 45103
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A Yes, sir.
Q But you didn't put it in the form of an informed consent form that he signed off on?
A No, sir.
Q The two scans that you did, the first one was an FDG SPECT scan; is that correct?
A Yes, sir. I don't know if it's fair to say "first". We do them together.
Q You do them together. You mean you inject both isotopes and then do the scan once?
A Yes, sir.
Q So, at one and the same time, you injected him with FDG and with HMPAO4 and with acetazolamide?
A They're not all in the same syringe, but they're fairly close in time.
Q So, one shot after another?
A Within a few minutes, yes, sir.
Q And then you do one scan; is that right?
A The scanner collects the data in both energy windows, so the two scans are collected at the same time.
Q What kind of a camera are you using?
A I'm using an FDG SPECT collimated camera.
Q How old is this camera?
A Approximately six years.
Q And set up as an FDG SPECT collimated camera,

Q Let's make it real short. Yes or no, are you aware of scientific literature which is sufficient to say that you can use a PET scan to diagnose chronic fatigue syndrome?

MR. ROBERTS: Objection.

A Well, the premise of the question has a problem. I mean, the scan itself, in and of itself, is not a diagnosis. So, we're speaking about functional brain imaging, and functional brain imaging is not a final diagnosis in and of itself. It must be evaluated in the context of the history and physical and other diagnostic information. So, I think that question as stated, the answer to that would be no for any diagnosis of any of those scans.

Q Very good. So, the same would be true --

A I'm not trying to be facetious.

Q I understand.

A I'm just trying to give an accurate answer to what you're saying, sir.

Q The same would be true of SPECT scans?

A That's correct.

Q Now, are you aware of any scientific literature upon which someone who does these scans can rely which identifies a set or specific pattern for people who have a diagnosis of chronic fatigue syndrome?

A No, sir.

Q Are the purple areas noise?

A The purple areas represent scattered background activity. You can see for yourself that they're about, at most, 5 to 10 percent of any image. Certainly probably less than 10 percent. So, I do not agree with your statement that there is a great deal of noise in the images, nor do I think the picture reflects that, sir.

Q All right. Can you tell me where I would find in the scientific literature the protocol of doing a single scan with a single camera for both FDG and HMPAO simultaneously?

A Well, that protocol is included in abstracts that I've written. And similar protocols for the heart are included in, where the other isotope is not HMPAO, but is another magnesium isotope. So, as far as methodology, it's the same. Those are published in the Journal of Nuclear Medicine and other nuclear medicine journals.

Q Has this protocol been generally accepted in the field of nuclear medicine?

A It's been generally accepted for the heart.

Q Has it been generally accepted in brain scans, PET and SPECT brain scans?

A I think it's fair to say it's not generally accepted. That would be multiple hospitals using it all over the country. But there are hospitals in multiple areas of

cortical metabolic fraction. It's a mechanism we use to compare one scan to another.

Q Not generally accepted in the field of neuroscience or nuclear medicine?

MR. ROBERTS: Objection.

A Well, it's a subset of generally-accepted analytical techniques. It's that particular way of stating the data may not have a broad acceptance, but it's based on very, very fundamental, basic principles which are widely stated in the field.

Q But not widely used as a means of interpreting these scans --

MR. ROBERTS: Objection.

Q -- other than by you?

A Well, some component of this type of methodology is widely used. So, it's related to the methodology that was used in Irvine where they used statistical parametric mapping. It's not the same technique. This precise version of the technique is mainly used by me, that's correct.

Q Okay. And CPF?

A Analogous, cortical perfusion fraction.

Q Do you testify often, Doctor?

A No, sir.

Q Are you consulted to do brain scans in motor

present on objective measures. There is no such thing as a perfect single test in medicine, to my knowledge; so, I don't think it's fair to say that, because a given test gives no information about or findings suggestive of particular diagnosis, that it has no bearing or has no value or no merit. I don't think that's true. But the test isn't perfect.

Q Are there descriptive patterns in what one would expect to see in somatization disorder?

A No, I don't think so. There's not a specific pattern for somatization disorder, to my knowledge.

Q How about a specific pattern for OCD?

A Usually the patients have abnormalities in the dorsolateral frontal cortex.

(Off-the-record discussion.)

Q Doctor, when we left off, you suggested the pattern for OCD would be, if I'm understanding, a decreasing metabolic functioning or metabolic uptake in the dorsolateral prefrontal cortex?

A Yes, sir.

Q Isn't that exactly what they found in California?

A Well, but they have a lot of other abnormalities, too.

Q Thank you. By the way, have you ever published

these fractions that you use, this cortical metabolic fraction or cortical perfusion fraction? Are they published in the literature at standard operating procedure?

A In abstract, yes, sir.

Q In the abstract?

A In the abstracts I told you before has been published multiple times.

Q You're saying, "This is what I do," but apparently it hasn't caught on?

A That's probably a fair way to assess it.

Q Doctor, are you attempting, on the basis of these scans that you did and the one-time examination, in the comparison with the California scans -- are you attempting to make a diagnosis that Mr. Jeffries has an inflammation of his brain?

A Yes.

Q Anything else that you decided he has?

A Well, he had evidence of thyroid cancer, based on the history, and received treatment for it. I haven't seen the biopsy diagnosis, but that's the history.

(Off-the-record discussion.)

Q We were asking if he had anything else. I understand he gave you a history of having thyroid cancer?

A Right. So, I would conclude that the history is likely accurate.

normal?

A Every study that published on cerebritis did that, sir. Now, when you talk about controlled studies, I mean, the degree of control, obviously it's very difficult to have -- you know, does every study have a complete autopsy? No. But the study -- every study, when they give a report on a SPECT scan, has determined what they thought was abnormal based on some criteria of normality, those criteria being similar to the ones used in our laboratory, for example, comparing the patients who appeared to do well and didn't appear to have severe problems.

Q Are you aware of any controlled studies that establish a PET or SPECT pattern for chronic fatigue syndrome?

A No, sir.

Q So, the PET or SPECT scan would not be useful in either ruling in or ruling out that particular syndrome?

MR. ROBERTS: Objection.

A I don't use it for that.

Q Okay. What with regard to -- let's use your cerebritis. What is your rate of specificity?

A Well, I believe it's good, but I don't have an absolute diagnosis because I don't have biopsies of the brains to know if that's what they had.

Q Have you done a repeat study on Mr. Jeffries to

Q You specifically referred to immune cerebritis. Is there anything in your scan that distinguishes between immune cerebritis and any other cerebritis?

A Well, the pattern of posterior fossa involvement in multiple different areas of abnormality tends to favor immune cerebritis, but there is an overlap between that and other encephalopathic syndromes.

Q Does that mean you can or can't say with specificity, supported by scientific research, that this is an immune cerebritis as opposed to any other cerebritis?

A I don't think you can differentiate 100 percent.

Q Did you choose immune cerebritis because the patient told you he thought he had an autoimmune problem?

A Well, I chose it because it seemed that -- Several reasons I chose that as descriptive in his case. One, that he's had thyroid disease, which tends to be associated with immunologic reactions. Another, that he gave a history of immunologic reaction to a known immunogen, substance designed to be immunogenic. That seemed to be a reasonable, plausible conclusion. As far as I know, he has no other exposures to any of those other things you talked about.

Q Does a person with, in your opinion, psychiatric difficulties show a pattern of metabolic